

## ABSTRACT

A portable device (8) for recognizing Acute Myocardial Infarction by the patient himself without the help of medical doctors or technicians is described. The invention performs a real-time analysis of the ST segment (9) in an ambulatory electrocardiographic measurement environment to help the patient decide by himself that he is suffering an Acute Myocardial Infarct.

The device (8) is capable of warning the user that he/she may be suffering a heart attack when the ST segment (9) is found to be depressed or elevated. The CARDIOST features a simple-to-use portable electrocardiographic amplifier (15) and a microcontroller unit (17) to analyze the ST segment (9) on the signal received from the electrocardiographic amplifier (15). With a software embedded in the microcontroller unit (17) the analysis of the ST segment (9) delivers the diagnosis to the patient with a visual and acoustic alarm (18,19,20,21) representing low, medium or high risk, depending on the status of the ST segment (9) shift so that he can seek medical treatment for thrombolysis or any other treatment currently available and influenced by early diagnosis within 4-6 hours without misinterpreting subjective chest pain symptoms, this being a worldwide medical problem since Acute Myocardial Infarction is the leading cause of mortality in the world.